

SPECIMEN CONTRACT



COST-PLUS-A-FIXED-FEE  
RESEARCH & DEVELOPMENT CONTRACT

Contract No. TBD

**BETWEEN**

CALIFORNIA INSTITUTE OF TECHNOLOGY  
JET PROPULSION LABORATORY  
(The "Institute" or "JPL")  
4800 OAK GROVE DRIVE  
PASADENA, CALIFORNIA 91109-8099

**AND**

TBD

THIS CONTRACT FOR  
DIVISION 35 MECHANICAL AND THERMAL ENGINEERING SUPPORT CONTRACT

IS A  
SUBCONTRACT UNDER JPL's NASA PRIME CONTRACT

TASK ORDER NO. Various

A DO - C9 Rating is assigned to this Contract under DMS Regulation 1

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The following documents are incorporated into and made a material part of this contract.

GENERAL PROVISIONS: Cost-Reimbursement with Commercial Organizations Contract R 8/01, with Incorporated Exhibits.

- Management of Government Property in the Possession of Contractors, Form JPL 0968
- Release of Information, Form JPL 1737
- Affiliate Access Report, Form JPL 1943
- Notification to Prospective Contractors of JPL's Ethics Policies and Anti-Kickback Hotline, Form JPL 2385
- Certifications, Form JPL 2892
- Asbestos Notification, Form JPL 2895

### ADDITIONAL GENERAL PROVISIONS (AGPs)

Disclosure and Consistency of Cost Accounting Practices, and Administration of Cost Accounting Standards R 4/99

New Technology R 8/01 (For Large Businesses)

Patent Rights - Retention By The Contractor (Short Form) R 4/99 (For Small Businesses)

or

Patent and Copyright Agreement R 4/99

Ceiling price: Limitation of Institute's Obligation R 4/99

Drug and Alcohol Free Workforce R 4/99

Flight Systems or Subsystems - Overtime R 3/01

Foreign Travel Reporting Requirements R 4/99

Government Property R 4/99

Inspection of Services R 4/99

Limitation of Obligation and Limitation of Cost for Task CWO Contracting R 4/99

Limitation of Obligation and Limitation of Funds for Task CWO Contracting R 8/01

Safety and Health R 4/00

PREAMBLE

This Contract, entered into on \_\_\_\_\_ by and between the CALIFORNIA INSTITUTE OF TECHNOLOGY (hereinafter called the "Institute" or "JPL"), a corporation organized and existing under the laws of the State of California, and TBD (hereinafter called the "Contractor"), a corporation organized and existing under the laws of the State of TBD and constituting a subcontract under Prime Contract NAS7-1407 between the Institute and the Government;

WITNESSETH THAT:

The Contractor agrees to furnish and deliver the supplies and perform the services set forth in this Contract for the consideration stated herein.

## SCHEDULE

### ARTICLE 1. STATEMENT OF WORK AND DELIVERY INSTRUCTIONS

#### 1.0 The Contractor shall:

- 1.1 Provide the labor, materials, facilities and equipment to perform and provide, when authorized by issuance of individual Contract Work Orders (CWOs) assistance to JPL in the following areas:

- 1.1.1 Structural Design and Analysis

- 1.1.1.1 Finite Element Model Analysis
    - 1.1.1.2 STS and Other LV Flight Loads Analysis
    - 1.1.1.3 In-Flight Loads Analysis
    - 1.1.1.4 Stress Analysis
    - 1.1.1.5 Dynamic Analysis
    - 1.1.1.6 Fracture Control
    - 1.1.1.7 Structures and Materials Analysis
    - 1.1.1.8 Mechanical Design
    - 1.1.1.9 Mechanical Drawing and Checking

- 1.1.2 Thermal Engineering

- 1.1.2.1 Thermal Design
    - 1.1.2.2 Thermal Analysis
    - 1.1.2.3 Advanced Thermal Development
    - 1.1.2.4 Thermal Coatings Environmental Testing
    - 1.1.2.5 Thermal Coatings Application
    - 1.1.2.6 Thermal Blankets Design, Prototyping and Installation

- 1.1.3 Contamination Control

- 1.1.3.1 Contamination Control Management
    - 1.1.3.2 Contamination Control Analysis

- 1.1.4 Optical Systems

- 1.1.4.1 Optical Design and Prototype Development
- 1.1.4.2 Optical Analysis
- 1.1.4.3 Optomechanical Design, Analysis, and Prototype Development
- 1.1.5 Interdisciplinary (Structures, Thermal, Optical, Contamination) Systems Analysis and Trade-off Studies
  - 1.1.5.1 Requirements Definition
  - 1.1.5.2 Configuration Trade-offs
  - 1.1.5.3 Design Review Support
  - 1.1.5.4 Independent Cost and Schedule Estimating
- 1.1.6 Technical Documentation Support
  - 1.1.6.1 Specification and procedure writing, editing, illustration and typing.
  - 1.1.6.2 Test Plans and Procedures
  - 1.1.6.3 Interface Control Documents
- 1.1.7 Design Function:
  - 1.1.7.1 Design Analysis
  - 1.1.7.2 Design Layouts
    - 1.1.7.2.1 Electronic Packaging
    - 1.1.7.2.2 Printed Wiring Boards
    - 1.1.7.2.3 Electronic Chassis
    - 1.1.7.2.4 Electronic Sub-assembly
  - 1.1.7.3 Detail drafting and checking
- 1.1.8 Mechanical Fabrication and Testing, Inspection, Assembly, and Integration
  - 1.1.8.1 Prototype Hardware Fabrication
  - 1.1.8.2 Prototype Hardware Protective Coatings
  - 1.1.8.3 Assembly, Integration, and Testing
  - 1.1.8.4 Electronic Hardware Fabrication
    - 1.1.8.4.1 Cable Harness

- 1.1.8.4.2 Electronic Chassis
    - 1.1.8.4.3 Electronic Modules
  - 1.1.8.5 Propulsion System Support
- 1.1.9 Propulsion Systems
  - 1.1.9.1 Chemical Systems
  - 1.1.9.2 Electrical Systems
  - 1.1.9.3 Feed Systems
- 1.2 Administrate the CWO as follows:
  - 1.2.1 Assign an individual who is responsible for the administration and supervision of all CWOs issued to the Contractor. Said individual shall be knowledgeable of all CWO tasks, keep the JPL Contract Technical Manager (CTM) and Cognizant Negotiator appraised of any technical and administrative problems, and be empowered to resolve such problems on behalf of the Contractor.
  - 1.2.2 Provide proposals to Contract Work Order Requests within 72 hours of request.
  - 1.2.3 Agree to negotiate, accept, and perform CWOs in accordance with the procedure described in "Exhibit II, CWO Procedure, dated March 8, 2002", attached hereto and made a part of this contract.
    - 1.2.3.1 Send CWO Proposals in accordance with the form in "Exhibit III, Cost Elements Breakdown, dated March 8, 2002" attached hereto and herein made a part of this contract.
  - 1.2.4 Provide courier service to route the CWO documentation around JPL and to Contractor's facilities.
  - 1.2.5 Copy and distribute executed CWO's to JPL Accounting, the CTM, and Cognizant Engineer, original to the Cognizant Negotiator.
- 1.3 Provide "shippers" for all deliverables delivered to JPL.
- 1.4 Provide monthly reports for each active CWO which details technical progress and cost performance.
  - 1.4.1.1 Distribute monthly report to Cognizant Engineer, JPL CTM and JPL Negotiator.
- 1.5 Conduct quarterly review meetings with the JPL CTM and JPL Cognizant Negotiator.
- 1.6 Attend bi-monthly status conferences with JPL CTM and JPL Cognizant Negotiator.
- 1.7 Quick Close Out

1.7.1 Upon completion of the last deliverable for each CWO, perform close out activities on an expedited basis. As required by each CWO, the quick close out process shall include, but not limited to, completion of the following within ninety (90) days:

1.7.1.1 Ending government property inventory, including residual materials.

1.7.1.2 Closing audits of all direct costs

1.7.1.3 Determination of final indirect costs

1.7.1.4 Advance final notice or final invoice

1.7.1.5 Contractor's release.

1.8 Attend Kick-off meeting at Contractor's facility.

1.9 As dictated by CWO, obtain State Department License for communication with JPL foreign partners in accordance with the laws set for in:

1.9.1 The Export Administration Regulations (EAR) of the Department of Commerce which govern commercial items. The International Traffic In Arms Regulations (ITAR) of the Department of State which govern military items and all space satellites and their components.

## 2.0 Facilities

2.1 The Contractor shall provide facilities to house their personnel provided in paragraph 1.1 et al. to the extent required by JPL. Said facilities shall be located within forty (40) miles of the JPL main facility, 4800 Oak Grove Drive, Pasadena, California, except as may otherwise be specified by JPL.

## 3.0 Training

3.1 Unique Training: Skills that are specific to JPL and may not be transferred to another organization.

3.1.1 The Contractor personnel may be required to attend training seminars, classes, symposiums, technical exhibits, or other related training functions necessary to maintain unique technical skills required by JPL on a CWO basis. The Contractor is responsible for coordinating such training, including but not limited to transportation, lodging, tuition, etc. This training may be a direct cost to the individual CWO.

3.2 Generic Training: Skills that may be transferred to another organization/contract such as Microsoft Office, SolidWorks, CAD, etc

3.2.1 Contractor personnel may be required to attend training seminars, classes, symposiums, technical exhibits, or other related functions necessary to maintain basic technical skills required under this contract. The Contractor is responsible for providing this training. This training must be applied to Contractor Overhead and may not be charged to the individual CWO.

3.2.2 Failure to provide such training may result in termination of the CWO task.

4.0 JPL will:

- 4.1 At JPL's sole discretion, and within the limits of the contract estimated ceiling value, issue CWO's to acquire needed support. Each CWO will consist of two parts:
  - 4.1.1 Statement of Work which identifies what the Contractor is to do, and may include designs, drawings, fabrication, assembly, and/or testing
  - 4.1.2 Deliverables Checklist which identifies what the Contractor is to deliver, and may include documentation or reports, drawings, calculations, mathematical models, software, and/or hardware.
- 4.2 Designate a Contract Technical Manager (CTM) who shall invoke and be cognizant of all CWOs.
- 4.3 Designate a Cognizant Negotiator who shall issue/approve and be cognizant of all CWOs.
- 4.4 When required by an individual CWO, designate a Technical Representative, provide work space, equipment, materials, supplies, documentation, Standards and/or forms determined by the JPL Technical representative to be necessary for the performance of work assigned at JPL or at any JPL controlled facility.
- 4.5 Provide access to hardware and software that is uniquely essential to accomplish the tasks, as required.
- 4.6 Provide on-lab Contractor personnel with ethics and safety briefing.
- 4.7 Approve all Contractor personnel assigned to work at JPL prior to their start date.

5.0 JPL may not solicit Contractor personnel for employment at JPL.

6.0 Exhibits

- 6.1 EXHIBIT I, Dated March 8, 2002, entitled "Contract Work Order (Cost Type Contract)"
- 6.2 EXHIBIT II, Dated March 8, 2002, entitled "CWO Procedure"
- 6.3 EXHIBIT III, Dated March 8, 2002, entitled "Cost Elements Breakdown"

7.0 Term Statement

- 7.1 The term of this Agreement shall commence as of the date put forth on the "preamble" page, and shall continue through September 28, 2003, the end date of the current Prime Contract between NASA and JPL. In no event shall JPL issue any CWO nor should the contractor perform work on any CWO issued after September 28, 2003.

8.0 Delivery Instructions

- 8.1 Except as otherwise provided in this Contract, the point of inspection, acceptance and delivery of all supplies deliverable under this Contract shall be the Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, California 91109. All such supplies shall be packaged, packed, boxed, or crated in such a manner to ensure safe delivery and shall be shipped prepaid and at the Contractor's expense to the point of delivery.



If New Technology is Applicable (For Large Businesses)

- 8.2 The Contractor shall furnish the Contracting Officer (CO) with the annual and final reports of reportable items described in the Article entitled "New Technology." Copies of transmittal letters for those reports shall be sent to the JPL Office of Patents and New Technology (OPANT) and to the cognizant JPL negotiator.

If Patent Rights is Applicable (For Small Businesses)

- 8.3 The Contractor shall provide the Contracting Officer (CO) the annual and final reports of subject inventions described in the Article entitled "Patent Rights - Retention by the Contractor (Short Form)." Copies of transmittal letters shall be sent to the JPL Office of Patents and New Technology (OPANT) and to the cognizant JPL negotiator.

Or

Patent and Copyright Agreement

- 8.4 The Contractor agrees to:
- 8.4.1 Require as a prerequisite to the performance of any support contract work by any employee of the Contractor that each of them execute the equivalent of a "Patent and Copyright Agreement" assignment (attached form JPL 1929), except those in clerical categories; and
  - 8.4.2 Notify JPL without delay and prior to the performance of any work, of the refusal of any employee of the Contractor, designated to perform work pursuant to this Contract, to execute the "Patent and Copyright Agreement," form JPL 1929 or its equivalent.
- 8.5 The Contractor hereby waives and releases, relinquishes and assigns to JPL all legal rights, including copyrights, title and interest to which it might otherwise be entitled by contract or under any applicable laws, in any copyright, reportable invention, discovery, innovation, improvement, or other matter whether or not patentable, that an employee of the Contractor solely, or jointly with others, conceives or actually reduces to practice in the performance of work pursuant to the above-identified Contract. The Contractor agrees to require its employees who work on the Contract to disclose promptly and fully to the California Institute of Technology, hereinafter referred to as the Institute, or to any individual, corporation, or Governmental agency which the Institute may specify, all inventions, discoveries, innovations, improvements, and other matters, whether or not patentable, that each solely, or jointly with others, conceives or actually reduces to practice in the performance of work pursuant to the Contract. If requested, the Contractor will provide JPL with any such executed "Patent and Copyright Agreement" forms.

## ARTICLE 2. ALLOWABLE COSTS, FIXED FEE AND PAYMENT.

## 1.0 Estimated Value.

Ceiling Price: \$TBD

The total estimated value for this Contract is the sum of the individual Contract Work Orders (CWO) values, including profit, which is contemplated to be \$TBD. Estimated costs and fees will be negotiated in advance for each CWO task, and payment shall only be made for work initiated by CWOs as defined in Article 1.

2.0 Precontract Costs. There shall be no allowance for costs incurred prior to the date of this Contract. If this Definitive Contract has been preceded by a Letter Contract, the phrase "date of this Contract" as used in this paragraph 2.0 shall mean the effective date of the Letter Contract.

## 3.0 Payment of Fixed Fee.

3.1 The total Fixed Fee for this contract is the sum of the Fixed Fees for all of the individual Contract Work Orders (CWOs) issued during the term of this contract. In accordance with the General Provision of this contract entitled, "Allowable Cost and Payment", the fee withhold on each CWO shall be 15%. Said withhold shall be released upon the close-out of the individual CWO.

3.2 The Fixed Fee for individual CWOs shall be set in advance as :

3.2.1 TBD% of the negotiated cost for Category X (off-lab) Personnel.

3.2.2 TBD% of the negotiated cost for Category A (on-lab) Personnel.

3.2.3 There shall neither be an adjustment in the amount of Fixed Fee, nor any claim for increased Fixed Fee payable under any CWO because of errors or omissions made in computing the Estimated Cost of the CWO, or any variations between the Actual Cost of the CWO and the Estimated Cost of the CWO.

4.0 Invoices. Invoices shall be submitted, in triplicate, to JPL Subcontract Payment Group, 4800 Oak Grove Drive, Pasadena, California 91109.

5.0 Allowable Costs. For the purpose of determining the amounts payable to the Contractor under this Contract, the allowability of costs shall be determined in accordance with the General Provision (GP) of this Contract entitled "Allowable Cost and Payment;" provided, however, that in determining the allowability of costs, the advance understandings, if any, on particular items of cost set forth below shall be given effect. In the event of any inconsistency between such advance understandings and the cost principles referred to in the "Allowable Cost and Payment" GP referenced above, the cost principles shall prevail.

## ARTICLE 3. OPTION PROVISION

### 1.0 Option Provision

- 1.1 The contractor hereby grants JPL the option to extend the period of performance of this contract up to an additional four (4) years.
- 1.2 JPL will give preliminary written notice of the intent to exercise the option ninety (90) calendar days before this Contract is to expire (such written notice will not be deemed to commit JPL to exercise the option. Within twenty (20) calendar days of JPL's preliminary written notice, the contractor shall submit a written proposal reflecting current rates for the intended option period. JPL may then exercise the option by issuance of a Supplemental Agreement at any time prior to the expiration of the term of this contract.
- 1.3 An agreement settling the option, if exercised, shall be fully negotiated prior to the expiration date of the period of performance specified herein. In the event that a Supplemental Agreement has not been executed prior to the expiration date specified herein, JPL retains the right to unilaterally extend the period of performance, prior to the expiration date specified herein, by issuance of a Unilateral Modification to the contract. Except as modified above, all Terms and Conditions of the basic contract shall continue during the option period.
- 1.4 For the option period, the basic contract fee rate stated below applies:
  - 1.4.1 TBD% for Category X personnel.
  - 1.4.2 TBD% for Category A personnel.

## ARTICLE 4. SPECIAL PROVISIONS

## 1.0 Conduct and Separation.

- 1.1 All Contractor personnel working in-residence at a JPL facility will be expected to conduct themselves in accordance with JPL standards of conduct, as described in "Standards of Conduct and Procedures for Handling Contractor Personnel Problems, Discipline, and Separation," form JPL 4412, which is incorporated into this Contract. The Contractor shall be responsible for ensuring that its personnel perform their JPL work assignments and conduct themselves in a manner acceptable to JPL. JPL may require the Contractor to separate any Contractor personnel from a JPL work assignment at any time for any lawful reason. In the event of such separation, the Contractor shall have the responsibility for reassigning or terminating such Contractor personnel.

## 2.0 JPL Contractor Safety and Health Notification.

- 2.1 Contractor has signed and acknowledged receipt of a copy of "JPL Contractor Safety and Health Notification," form JPL 2885 (identifying applicable required documentation, safety requirements, emergency handling procedures, etc.), which is hereby made a material part of this Contract. The costs associated with compliance with all applicable requirements as identified on form JPL 2885 are included in the Contract pricing, and therefore, Contractor compliance with such requirements shall not entitle the Contractor to an equitable adjustment under the General Provisions of the Contract entitled "Safety and Health," and "Changes," or under any other provision of this Contract.

## 3.0 Key Personnel and Facilities.

- 3.1 The personnel and/or facilities, if any, specified below in paragraph 3.2 are considered essential to the work being performed hereunder. Prior to removing, replacing, or diverting any of the specified individuals or facilities, the Contractor shall notify JPL reasonably in advance and shall submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this Contract. No diversion shall be made by the Contractor without the written consent of JPL; provided, that JPL may ratify in writing the change, and such ratification shall constitute the consent of JPL required by this Article. Paragraph 3.2 below may, with the consent of the Contracting parties, be amended from time to time during the course of the Contract to either add or delete personnel and/or facilities, as appropriate.

- 3.2 The following Contractor personnel shall be considered Key Personnel under this Contract

3.2.1 TBD Name                      TBD Number of Hours

## 4.0 Personnel Processing.

- 4.1 Contractor personnel shall report to the JPL Security Group Office for (i) check-in processing before commencing work and (ii) check-out processing when terminating. Separation check-out will include the return of all Government property and badges, documents, and tools which may have been provided by JPL during each individual's performance under this Contract.

5.0 Reimbursable Hours.

- 5.1 Contractors are reimbursed only for the specific hours worked by their personnel, which have been authorized by JPL in accordance with corresponding contract terms. Contractors are not reimbursed for any scheduled time not worked due to their personnel being directed by JPL to leave, or not report to, their JPL workstations when JPL deems it to be unsafe or useless to work at their JPL workstations due to earthquake, fire, civil disturbance, hazardous materials (HAZMAT) incident, power outage, or other situations.

6.0 Supportive Invoice Information.

- 6.1 To facilitate the prompt payment of costs incurred by the Contractor in the performance of work associated with the CWOs issued against this Contract, each invoice shall be submitted cross-referencing individual authorizing account codes to CWO-specific costs incurred. The account codes and allocation guidelines will be provided on the CWOs. In addition, the final invoice on each CWO shall be marked "FINAL."

## ARTICLE 5. ALTERATIONS TO THIS CONTRACT

The following alterations have been made to this Contract:

### 1.0 Cost Contract with Task CWOs - Funds-Expired Warning Time Reduction.

- 1.1 In the Additional General Provision Article entitled "Limitation of Obligation and Limitation of Cost For Task CWO Contracting" and in the Additional General Provision Article entitled "Limitation of Obligation and Limitation of Funds For Task CWO Contracting," delete "60 days" and substitute "30 days."

### 2.0 In the Article entitled "Termination - Cost," delete paragraph (h)(4) and substitute:

- (4) A portion of the fees payable under this Contract, payable as follows:

- (A) In the event of the termination of this Contract for the convenience of the Institute or the Government and not for the default of the Contractor, there shall be paid (i) fixed fee for each CWO equal to the full fixed fee for the CWO multiplied by the percentage of work completed under the CWO less any fixed fee payment(s) previously made under the CWO.
- (B) In the event of the termination of this Contract for the default of the Contractor, there shall be paid (i) full fixed fee for each fully completed CWO less any fixed fee payment(s) previously made under each CWO. No additional fixed (beyond that already paid to the Contractor prior to the termination for default) shall be paid for any partially completed CWOs. However, the Contractor shall not be required to return fees already paid to it by JPL (e.g., fees paid on partially completed CWOs).

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the day and year first above written.

**CALIFORNIA INSTITUTE OF TECHNOLOGY**

By \_\_\_\_\_

**TBD CONTRACTOR**

By \_\_\_\_\_

Instructions to Contractor: Do not insert date on Preamble page.